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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/749,193   | 12/31/2003  | Vivek Halwan         | 67,007-008; R-05324 | 9969             |
| 26096  | 7590        | 06/27/2005           | EXAMINER            |                  |
| CARLSON, GASKEY & OLDS, P.C.<br>400 WEST MAPLE ROAD<br>SUITE 350<br>BIRMINGHAM, MI 48009 |             |                      | JIANG, CHEN WEN     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3744                |                  |

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                            |                  |
|------------------------------|----------------------------|------------------|
| <b>Office Action Summary</b> | Application No.            | Applicant(s)     |
|                              | 10/749,193                 | HALWAN ET AL.    |
|                              | Examiner<br>Chen-Wen Jiang | Art Unit<br>3744 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 April 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,6,9,10,13-15,18 and 21-23 is/are rejected.
- 7) Claim(s) 4,5,7,8,11,12,16,17,19 and 20 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 December 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20050425.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 4/25/2005 have been fully considered but they are not persuasive. The word "transit" is not disclosed in the specification and start-up is a transit process. The normal operation after the start-up operation is inherent in the operation.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,9,13 and 21-23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takigawa et al. (U.S. Patent Number 5,619,859).

Takigawa et al. disclose an absorption refrigeration unit improving the response by adequate heating at the time of start-up operation. Referring to Fig.1, the unit comprises a generator 3, a burner 31a, heating control means 32 and fuel control valve 32a. The first temperature detecting means 7 for detecting an inlet temperature  $T_i$  of the cooling water flowing through the cooling water-piping 23 arranged in the absorber 2 and second temperature detecting means 8 for detecting a temperature  $T_{gh}$  in the high temperature generator 3. The temperature detecting means 7,8 are connected with a controller 100 provided with the opening-degree

adjusting means 32b (feedback control). Opening of the fuel control valve 32a is adjusted by opening-degree adjusting means 32b on the basis of a value detected by cooling load detecting means 32b comprising cooled water outlet temperature detecting means 14 provided at an outlet of the water cooling pipe 11. The degree of the opening of the fuel valve is increased to 100% after the start-up.

4. Claims 1,2,3,6,9,10,13,14,15,18 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Izumi et al. (JP 05248726).

Izumi et al. disclose an absorption refrigeration machine improving the starting performance. The machine comprises a generator 1, an evaporator 4, an absorber 5, controller 8, pipes, refrigerant circuit, heating control valve V2 and temperature sensors T1,T2,T3. The temperature sensor T2 measures the absorption temperature leaving the generator. The system uses a steam or warm water for the heat source of the regenerator. The available heat to the absorption system is inherent in the system since the valve opening has to be based on the available heat. During the starting-up operation, the valve opening V1 of the cooling water pipe 17a is controlled by the controller 8 based on the temperature of an absorbent liquid in the high-temperature generator 1 (feedback control).

#### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takigawa et al. (U.S. Patent Number 5,619,859) in view of Perry (U.S. Patent Number 4,665,709).

Takigawa et al. disclose the invention substantially as claimed. However, Takigawa et al. disclose burner as direct heat source. Perry discloses boiler with control 26 in the same field of endeavor for the purpose of providing heat for generator. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Takigawa et al. with a controlled heat source in view of Perry so as to save energy.

#### *Allowable Subject Matter*

7. Claims 4,5,7,8,11,12,16,17,19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (571) 272-4809. The examiner can normally be reached on Tuesday-Friday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chen-Wen Jiang  
Primary Examiner

